

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF RHODE ISLAND

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UNITED STATES OF AMERICA,

Plaintiff,

v.

Civil No. 23-311

TAYLOR FARMS NEW ENGLAND, INC.,

Defendant.
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COMPLAINT

The United States of America, by authority of the Attorney General of the United States and through the undersigned attorneys, acting at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF THE ACTION

1. This is a civil action for penalties and injunctive relief against Defendant Taylor Farms New England, Inc. ("Defendant") for violations of Section 112(r)(7) of the Clean Air Act ("CAA"), 42 U.S.C. § 7412(r)(7), Section 312 of the Emergency Planning and Community Right-To-Know Act ("EPCRA"), 42 U.S.C. § 11022(a), and regulations that implement those statutory provisions at Defendant's food processing facility located in North Kingstown, Rhode Island. One of the allegations – the failure to properly protect evaporators used in an ammonia refrigeration system from accidental impacts – resulted in an ammonia release at the Defendant's Rhode Island facility when a forklift extended to reach the top level of a storage rack and impacted an ammonia pipe that was part of an evaporator installation.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of this action and the Defendant, pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), Section 325(c) of EPCRA, 42 U.S.C. § 11045(c), and under 28 U.S.C. §§ 1331, 1345, and 1335. Venue lies in this District pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), Section 325(c) of EPCRA, 42 U.S.C. § 11045(c), and 28 U.S.C. §§ 1391(c) and 1395(a), because the violations alleged in the Complaint are alleged to have occurred in, and Defendant resides in, this judicial district.

3. Venue is proper in this District under Section 113(b) of the CAA, 42 U.S.C. § 7413(b), Section 325(c) of EPCRA, 42 U.S.C. § 11045(c), and 28 U.S.C. §§ 1391(b) and (c), and 1395(a), because the Defendant does business in, and these claims arose within, this judicial district.

4. Notice of commencement of this action has been given to the State of Rhode Island pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b).

PARTIES

5. Plaintiff is the United States of America, acting at the request of the EPA, an agency of the United States.

6. Defendant is a corporation organized under the laws of Delaware with a principal office in Salinas, California. Defendant is doing business in this judicial district, the District of Rhode Island.

7. Defendant is the operator of a facility located at 320 Commerce Park Road in North Kingstown, Rhode Island that handles, stores, and uses anhydrous ammonia in its industrial refrigeration system.

8. Defendant is a “person” within the meaning of Section 302(e) of the CAA, 42 U.S.C. § 7602(e), and Section 329 of EPCRA, 42 U.S.C. § 11049(7).

STATUTORY AND REGULATORY FRAMEWORK

Clean Air Act

9. In 1990, Congress added Section 112(r) to Title III of the CAA to reduce the risks of chemical accidents. CAA Section 112(r)(1), 42 U.S.C. § 7412(r)(1), first issued as Pub. L. 101-549 (Nov. 15, 1990).

10. Pursuant to Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1), the objective of regulations and programs authorized under CAA Section 112(r) is to prevent and minimize the consequences of accidental releases of extremely hazardous substances. Owners and operators of stationary sources producing, processing, handling, or storing substances listed pursuant to Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3), or any other extremely hazardous substance, have a general duty, in the same manner and to the same extent as federal occupational, safety, and health law requirements codified at 29 U.S.C. § 654, to (a) identify hazards which may result from accidental releases of such substances using appropriate hazard assessment techniques; (b) design and maintain a safe facility taking such steps as are necessary to prevent releases; and (c) minimize the consequences of accidental releases which do occur. This section of the CAA is referred to as the “General Duty Clause.”

11. The term “accidental release” is defined by CAA Section 112(r)(2)(A), 42 U.S.C. § 7412(r)(2)(A), to include an unanticipated emission of a regulated substance into the ambient air from a stationary source.

12. Section 112(r)(3), 42 U.S.C. § 7412(r)(3), requires EPA to promulgate a list of substances that are known to cause or may reasonably be anticipated to cause death, injury, or serious adverse effects to human health or the environment if accidentally released. Section 112(r)(5), 42 U.S.C. § 7412(r)(5), requires EPA to establish for each regulated substance a threshold quantity over which an accidental release is known to cause or may reasonably be anticipated to cause death, injury, or serious adverse effects to human health.

13. Anhydrous ammonia is listed as a “regulated substance” under Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3), with a threshold quantity of 10,000 lbs. under 40 C.F.R. § 68.130.

14. Section 112(r)(7) of the CAA, 42 U.S.C. § 7412(r)(7), authorizes the Administrator of the EPA to promulgate regulations requiring owners or operators of a stationary source at which a regulated substance is present in more than a threshold amount to, among other things, prepare and implement a risk management plan to detect and prevent or minimize accidental releases of regulated substances from the stationary source, and to provide a prompt emergency response to any such releases in order to protect human health and the environment.

15. EPA has promulgated regulations to implement Section 112(r)(7), codified at 40 C.F.R. Part 68, which require owners and operators of stationary sources that have more than a threshold quantity of a regulated substance in a process to develop and implement a risk management program that must be described in a risk management plan submitted to EPA and that includes, among other things, a management system, a hazard assessment, and an accident prevention program.

16. A “stationary source” means, in relevant part, “any buildings, structures, equipment, installations or substance emitting stationary activities . . . from which an accidental release may occur.” CAA Section 112(r)(2)(C), 42 U.S.C. § 7412(r)(2)(C).

17. “Process” is defined in 40 C.F.R. § 68.3 to mean “any activity involving a regulated substance, including any use, storage, manufacturing, handling, or on-site movement of such substances, or any combination of these activities. For the purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.” “Covered Process” means “a process that has a regulated hazardous substance present in more than a threshold quantity as determined under [40 C.F.R.] § 68.115.” 40 C.F.R. § 68.3.

18. Pursuant to 40 C.F.R. § 68.10(a), an owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process shall comply with the requirements of 40 C.F.R. Part 68 (“RMP Regulations”).

19. The regulations at 40 C.F.R. Part 68 separate the covered processes into three categories, designated as Program 1, Program 2, and Program 3, and set forth specific requirements for owners and operators of stationary sources with processes that fall within the respective programs.

20. Pursuant to 40 C.F.R. § 68.10(i), a Covered Process is subject to Program 3 requirements if the process does not meet one or more of the Program 1 eligibility requirements set forth in 40 C.F.R. § 68.10(g), and if either of the following conditions is met: (a) the process is listed in one of the specific North American Industry Classification System codes found at 40 C.F.R. § 68.10(i)(1); or (b) the process is subject to the United States Occupational Safety and

Health Administration (“OSHA”) process safety management standards set forth in 29 C.F.R. § 1910.119.

21. Pursuant to 40 C.F.R. § 68.12(a), the owner or operator of a stationary source subject to this part must submit a risk management plan (“RMP”), as provided in §§ 68.150 to 68.185.

22. Pursuant to 40 C.F.R. § 68.12(d), in addition to filing an RMP, the owner or operator of a stationary source that is subject to Program 3 prevention requirements must undertake certain additional tasks including, but not limited to: developing and implementing a management system, as provided in 40 C.F.R. § 68.15; developing and implementing release prevention program requirements, as provided in 40 C.F.R. §§ 68.65-68.87 (which include, among others, compiling process safety information, conducting a process hazard analysis, developing written standard operating procedures, training, maintaining the mechanical integrity of process equipment, managing changes, and pre-startup safety review procedures); coordinating response actions with local emergency planning and response agencies as provided in 40 C.F.R. § 68.93; developing and implementing an emergency response program, and conducting exercises, as provided in §§ 68.90 to 68.96; and submitting as part of the RMP the data on prevention program elements for Program 3 processes as provided in § 68.175.

23. Under Section 112(r)(7)(e) of the CAA, 42 U.S.C. § 7412(r)(7)(e), it is unlawful for any person to operate any stationary source subject to regulations promulgated pursuant to Section 112(r) in violation of such regulation or requirement.

24. Section 113(b) of the CAA, 42 U.S.C. § 7413(b), provides that the Administrator of EPA shall, in the case of a person who is the owner or operator of a major stationary source, and may, in the case of any other person, whenever such person violates any requirement or

prohibition of Subchapter I of the CAA (42 U.S.C. §§ 7401-7515), commence a civil action for injunctive relief and to assess and recover a civil penalty of up to \$25,000 per day for each such violation. This amount has been increased over the years to account for inflation. Defendant is liable for a civil penalty of up to \$117,468 per day for each violation, pursuant to the following statutes and regulations: the Federal Civil Penalties Inflation Adjustment Act of 1990 as amended through 2016 (“FCPIAA”), 28 U.S.C. § 2461 note; the Debt Collection Improvements Act of 1996 (“DCIA”), 31 U.S.C. § 3701; and EPA’s Civil Monetary Penalty Inflation Adjustment Rule (“Inflation Adjustment Rule”) at 40 C.F.R. Part 19, which was promulgated pursuant to the DCIA and FCPIAA and updated at 88 Fed. Reg. 986, 989 (Jan. 6, 2023).

EPCRA

25. EPCRA was enacted on October 17, 1986, and establishes requirements regarding emergency planning for, and reporting on, hazardous and toxic chemicals. EPCRA Sections 301-330, 42 U.S.C. §§ 11001-11050.

26. Pursuant to Section 312(a) of EPCRA, 42 U.S.C. § 11022(a), the owner or operator of a facility that is required by the Occupational Safety and Health Act, 29 U.S.C. § 651 et seq. (the “OSH Act”) to prepare or have available a material safety data sheet (“MSDS”) shall prepare an emergency hazardous chemical inventory form (“Inventory Form”) and submit it to the appropriate State Emergency Response Commission (“SERC”), Local Environmental Planning Committee (“LEPC”), and fire department with jurisdiction over the Facility, annually, on or before March 1 of each year. The Inventory Form must contain information for the preceding calendar year.

27. Since May 25, 2012, OSHA’s hazard communication regulations have replaced the term MSDS with “Safety Data Sheet” (“SDS”). *See* 29 C.F.R. § 1910.1200.

28. Section 312(b) of EPCRA, 42 U.S.C. § 11022(b), authorizes EPA to establish minimum threshold levels of hazardous chemicals for the purposes of Section 312(a) of EPCRA, 42 U.S.C. § 11022(a).

29. Pursuant to Section 328 of EPCRA, 42 U.S.C. § 11048, EPA promulgated regulations at 40 C.F.R. Parts 355 and 370 to implement the emergency planning and Inventory Form submittal requirements of EPCRA.

30. Pursuant to 40 C.F.R. § 370.10(a), an owner or operator of a facility must comply with the reporting requirements of EPCRA Section 312(a) if the OSHA Hazard Communication Standard requires the facility to prepare or have available an MSDS for a hazardous chemical and if the chemical is present in specified thresholds. For extremely hazardous substances listed under 40 C.F.R. Part 355, App. A and B, the threshold is the lower of (a) 500 lbs. or (b) the chemical's Threshold Planning Quantity, under 40 C.F.R. Part 355, Appendix A and B. The threshold for both anhydrous ammonia and sulfuric acid is 500 lbs. as each has a Threshold Planning Quantity of 500 lbs. or more.

31. Pursuant to Section 312(a)(2) of EPCRA, 42 U.S.C. § 11022(a)(2), and 40 C.F.R. § 370.40, the Inventory Form shall contain the "Tier I" information specified in EPCRA Section 312(d)(1) for the preceding calendar year, unless the owner or operator provides more extensive "Tier II" information, pursuant to EPCRA Section 312(d)(2). Forty C.F.R. § 370.40 also specifies that states may require Tier II information.

32. Section 312(e)(1) of EPCRA, 42 U.S.C. § 11022(a), also requires submittal of a Tier II chemical inventory form "upon request" by the LEPC, SERC, or fire department, and EPCRA Section 303(d), 42 U.S.C. § 11003(d), allows the LEPC to require prompt provision of information necessary for developing and implementing the community emergency plan. In 40

C.F.R. § 370.45(b), EPA established a 30-day deadline for responding to requests for Tier II forms.

33. Pursuant to Section 325(c)(1) and (4) of EPCRA, 42 U.S.C. § 11045(c)(1) and (4), the Administrator of EPA may bring an action for a civil penalty of up to \$25,000 for each violation of any requirement of EPCRA Section 312, 42 U.S.C. § 11022, administratively or in the United States district court for the district in which the person from whom the penalty is sought resides or in which such person's principal place of business is located. Pursuant to the FCPIAA, DCIA, and 40 C.F.R. Part 19, this amount since has been adjusted for inflation to \$67,544 for each violation.

34. Pursuant to 42 U.S.C. § 11045(c)(3), each day a violation of EPCRA Section 312, 42 U.S.C. § 11022, continues constitutes a separate violation.

GENERAL ALLEGATIONS

35. Upon information and belief, the United States alleges the facts in Paragraphs 36 through 66, below.

36. Defendant is the operator of a 107,000 square foot facility where it manufactures perishable prepared foods for retail locations and grocery stores (the "Facility").

37. The Facility is in a business park, near other businesses, a residential area, an elementary school, an airport, and a naval air station. Hundreds of people work at the Facility.

38. The Facility's building and equipment are "stationary sources" as that term is defined at Section 112(r)(2)(C) of the CAA, 42 U.S.C. § 7412(r)(2)(C), and 40 C.F.R. § 68.3. Likewise, the building is a "facility" as defined in EPCRA at 42 U.S.C. § 11049(4).

39. The Facility's refrigeration system, which is comprised of a series of interconnected vessels, evaporators, piping, and other equipment, uses over 16,000 lbs. of anhydrous ammonia as a refrigerant (the "Refrigeration System" or "Process").

40. The Facility's Refrigeration System is a "process," as that term is defined in 40 C.F.R. § 68.3.

41. Anhydrous ammonia is "used," "stored," and "handled" in the Refrigeration System in an amount greater than the threshold amount under 40 C.F.R. § 68.130. Thus, the Refrigeration System is a "covered process," as defined in 40 C.F.R. § 68.3.

42. The endpoint for a worse case release of this amount of anhydrous ammonia at the Facility is greater than the distance to a public receptor.

43. Anhydrous ammonia in an amount over the threshold quantity of 10,000 lbs. is subject to OSHA's Process Safety Management ("PSM") requirements at 29 C.F.R. § 1910.119.

44. As the operator of a stationary source that has more than the threshold amount of a regulated substance in a covered process, Defendant is subject to 40 C.F.R. Part 68. In accordance with 40 C.F.R. § 68.10(a)-(d), Defendant's use, storage, and handling of anhydrous ammonia at the Facility is subject to the requirements of RMP Program 3. The covered process is subject to Program 3 because (1) the distance to a toxic or flammable endpoint for a worst-case release of anhydrous ammonia is more than the distance to a public receptor, making the process ineligible for Program 1; and (2) the process is subject to OSHA's PSM regulations.

45. Greencore USA, Inc. constructed and opened the Facility in 2015. Greencore USA, Inc. shut down the Facility in March of 2018, and Defendant began operations at the Facility in April of 2019.

46. In 2019, Defendant redesigned the Facility, added a compressor, condenser, and evaporators, and moved existing evaporators to other locations within the Facility.

47. On August 23, 2019, Defendant's contractor submitted a Program 3 RMP to EPA via EPA's electronic system, and Defendant certified the RMP on September 3, 2019.

48. On September 9, 2019, the Refrigeration System was filled with over 16,000 lbs. of anhydrous ammonia so that it could begin use.

49. Defendant did not provide the information necessary for developing the local emergency response plan to the LEPC before filling the Refrigeration System with ammonia.

50. On October 11, 2019, about a month after the Refrigeration System started operating, the chair of the LEPC, which, pursuant to EPCRA Section 303, was in charge of developing the community emergency response plan, requested Defendant to meet and submit an EPCRA Tier II form, the RMP, and its Emergency Response Plan. The LEPC did not receive the EPCRA Tier II form until on or about November 15, 2019. The EPCRA Tier II form was in the wrong format and had errors, such as lack of information about sulfuric acid-containing batteries, which were not fully resolved until February 26, 2020.

51. On November 18, 2019, the LEPC reminded Defendant of the need to cooperate, described missing information (including a missing site plan), and stated that "our district plan does not reflect your business, the increase in your ammonia inventory and its potential consequences in the event of an accident."

52. On November 20, 2019, EPA inspectors, accompanied by local emergency planners and responders, inspected the Facility (the "Inspection") to assess Defendant's compliance with the RMP regulations and EPCRA. On that date, EPA also asked the company to provide some further documentation.

53. Among the conditions the EPA inspectors observed on the date of the Inspection were the following:

- a) Evaporators in the cold storage warehouse, which contain anhydrous ammonia, were not provided with adequate protection from physical damage, particularly in areas where storage rack heights extended above the level of the evaporators.
- b) Electrical hazards, which posed a fire risk, in rooms that had anhydrous ammonia in piping and equipment.
- c) Emergency eyewash stations were blocked by pallets, buckets, and a snowblower.
- d) Defendant had failed to equip the ammonia machinery room in which much of the ammonia was stored with critical emergency information. The room lacked a sign with emergency shutdown information; facility personnel did not know the purpose of emergency buttons labeled “EPCS”; and other emergency ventilation and shutdown buttons were inadequately labeled.
- e) A sign posted in the ammonia machinery room to identify the refrigeration system installer did not include required information about the ammonia charge, the type of oil in the system, and the amount and test pressures applied to the system.
- f) Entry doors to the ammonia refrigeration room were not tight-fitting, which could allow ammonia vapors to escape from the room to other parts of the building during a release.
- g) Inappropriate storage of some materials, such as maintenance equipment and personal protective equipment, in the ammonia machinery room.

54. EPA inspectors summarized the conditions listed in paragraph 53 during the Inspection outbrief on the day of the Inspection, and on December 11, 2019, EPA sent Defendant a list of the key inspection findings by e-mail.

55. EPA sent Defendant an inspection report on January 17, 2020, which likewise documented the conditions described in paragraph 53.

56. On April 2, 2020, an ammonia release occurred at the facility when a forklift extended to reach the top level of a storage rack and impacted an ammonia pipe that was part of an evaporator installation (the “Release”).

57. The Release required an emergency response by the North Kingston Fire and Police Departments, hazardous materials and decontamination teams from nearby towns, and the Rhode Island Departments of Environmental Management and Public Health.

58. A response team recorded ammonia levels over 1,000 parts per million (“ppm”) in the area where the Release occurred. The National Institute for Occupational Health’s recommended short-term exposure limit is 35 ppm.

59. Approximately 600 employees were evacuated, a road was shut down, food was ordered destroyed, and 14 employees went to the hospital for evaluation.

60. On May 20, 2020, EPA sent to Defendant a draft *Notice of Violation and Opportunity to Confer and Administrative Compliance Order*, citing violations of the CAA and EPCRA (“Draft Order”).

61. On June 11, 2020, EPA issued a final compliance order (“Final Order”).

62. For the rest of 2020 and 2021, Defendant worked with EPA to comply with the Final Order, receiving extensions for some of the work. However, progress stalled on some items, reportedly due to staff turnover, contractor availability, and supply chain issues.

Defendant also failed to update its RMP to reflect the Release and changed emergency contacts and missed an EPCRA Tier II filing deadline on March 1, 2021.

63. On September 11, 2020, OSHA issued citations to Defendant.

64. On May 10 and 11, 2021, after meeting with several state, local, and federal partner agencies, EPA sent Defendant and its corporate parent a letter to bring the continuing non-compliance to their attention and urge more oversight of environmental obligations. Other concerns shared by the partner agencies, and expressed in the letter, included whether Defendant: could properly oversee day-to-day RMP obligations and emergency coordination at the Facility when the Facility's RMP program was being managed with such turnover; had sufficient, ongoing coordination with local emergency planning and response agencies due to staff turnover; and had properly trained and provided appropriate materials to its employees to ensure a safe workplace, given that English was a second language for many of the employees.

65. On August 18, 2021, an expert team hired by one of Defendant's customers examined the Refrigeration System for compliance with RMP and OSHA regulations and found some deficiencies, which were documented in a report.

66. On November 16, 2021, EPA issued a formal information request letter, under the authority of CAA Section 114, 42 U.S.C. § 7414, to which Defendant responded on January 11, 2022.

CLAIMS FOR RELIEF

FIRST CLAIM FOR RELIEF – VIOLATION OF 40 C.F.R. § 68.65

Failure to Comply with Process Safety Information Requirements, Including Documenting Compliance with Recognized and Generally Accepted Good Engineering Practices

67. Pursuant to 40 C.F.R. § 68.65(a), before completing a process hazard analysis, the owner or operator of a Program 3 process is required, among other things, to compile written process safety information. This includes documenting information pertaining to the hazards of the RMP chemical in the process and information pertaining to the technology and equipment of the process.

68. Pursuant to 40 C.F.R. § 68.65(d)(1), documentation of the equipment in the process must include, among other things, the design codes and standards employed.

69. Pursuant to 40 C.F.R. §§ 68.65(d)(2) and (3), the owner or operator must also document that the equipment complies with recognized and generally accepted good engineering practices (“RAGAGEP”) and document that any equipment designed according to outdated standards is designed, maintained, inspected, tested, and operated in a safe manner.

70. Considering the potential hazards posed by the mishandling of anhydrous ammonia, industry trade associations have issued standards of care outlining the RAGAGEP for ammonia refrigeration systems. The standards of care are set out in Attachment A of this Complaint.

Failure to Compile Design Codes and Standards Employed (§ 68.65(d)(1))

71. At the time of Inspection, Defendant had not properly compiled all the necessary process safety information pertaining to equipment of its Refrigeration System, including the design codes and standards employed, in violation of § 68.65(d)(1)(vi). Specifically, Defendant did not update its list of RAGAGEP to versions in effect in 2018 and 2019 when the company made major modifications to the covered process and the Facility. For example, the proper version of the main design code promulgated by the International Institute for Refrigeration (“IIAR”), ANSI/IIAR 2 *Standard for Safe Design of Closed-Circuit Ammonia Refrigeration*

Systems, would have been the 2014 version, not the 2008 version. Also, Defendant's list included several IIAR bulletins that IIAR had rescinded almost a decade before.

Failure to Document Compliance with RAGAGEP (§ 68.65(d)(2))

72. As is typical, many of the Refrigeration System's ammonia-containing machines, such as compressors and the high-pressure receiver, are located in an ammonia machinery room, where various safety features help prevent and mitigate ammonia releases from the machines. RAGAGEP specifies that when such machines are located in a machinery room, the space must be designed to, among other things, limit ammonia leakage to other areas of the building; provide an ammonia detection and alarm system; reduce electrical and fire hazards; provide clear access to the machines; give information about the refrigeration system through signage, labels, and emergency instructions; provide easy access to eyewash showers and stations in the event of an ammonia leak; and clear ammonia vapors with proper ventilation. *E.g.*, ANSI/IIAR 2, Chapter 6.

73. Evaporators and associated piping are located throughout the Facility's food warehouse rooms to cool the rooms. As with the ammonia machinery room, RAGAGEP requires designing the equipment and the spaces in which the equipment is located with protections to reduce the risk of an ammonia release and minimize the threats from any releases that do occur. Such safety controls include, for example, protection of equipment from inadvertent impacts, provision of ammonia detection systems, and clear labeling. *E.g.*, IIAR 2, Chapters 5, 7, and 17.

74. As further described in Attachment A, Taylor Farms failed to document that the equipment complied with RAGAGEP, in violation of 40 C.F.R. §68.65(d)(2). Specifically,

among other things, EPA inspectors directly observed or later obtained documentation of the following RAGAGEP deficiencies involving process equipment:

- (a) *Evaporators not protected from impacts*: Evaporators, which contain anhydrous ammonia, were not provided with adequate protection from physical damage.
- (b) *Other equipment not protected from impacts*: A sight-glass in the ammonia machinery room lacked impact protection, and some ammonia piping in that room also was not protected from impact. In addition, after the Inspection, an expert team hired by one of Defendant's customers ("Outside Consultants"), reviewed the Facility for OSHA process safety management ("PSM") and RMP compliance and found two sight glasses in the machinery room that were not protected from impacts.
- (c) *Labeling of critical valves*: The King valve, which is the critical shutoff valve for the high-pressure receiver, was not properly labeled, which could create confusion during an emergency.
- (d) *Pipe labeling*: Some pipe labeling near the impacted evaporator installation was not visible. The ammonia labels were on the back of the piping facing the wall, where a forklift operator would not have easily seen them, rather than on the front side facing the room and aisle. Also, the Outside Consultants subsequently found that pipes on the roof had missing or worn labeling.
- (e) *Wrong set points for detectors*: The ammonia detector in the room where the Release occurred (+45 Fruit Room) was set to trigger an alarm at a set point

higher, and less protective than, 25 parts per million (“ppm”), as required by RAGAGEP.

- (f) *Emergency controls:* Facility personnel did not know the purpose of emergency buttons labeled “EPCS,” and another set of other emergency ventilation and shutdown buttons were inadequately labeled in that they did not specify that the buttons were for the Refrigeration System. In addition, the Outside Consultants subsequently found that the blue ammonia light on the outside of the machinery room was missing a sign indicating that there is an ammonia hazard occurring when the blue light is flashing.
- (g) *Electrical hazards:* The inspectors observed electrical hazards, which posed a fire risk, around ammonia-containing piping and equipment. Specifically, in the cold storage warehouse area, the inspectors observed water pooling next to a temporary forklift battery charging station. The temporary charging station had extension cords rather than permanent electrical wiring. Also, there were open electrical panels in the ammonia machinery room. In addition, the Outside Consultants found an electrical junction box above the exit door in the +45 Fruit Room that was missing a cover and an extension cord being used as permanent wiring in the ammonia machinery room to power equipment for the nitrogen and oxygen tanks.
- (h) *Inappropriate storage of materials/equipment in machinery room:* The inspectors observed inappropriate storage of some materials, such as maintenance equipment and personal protective equipment, in the ammonia

machinery room. The Outside Consultants found oxygen and nitrogen containers in the machinery room, which is a fire hazard.

- (i) *Blocked emergency eyewash stations:* EPA inspectors observed eyewash stations blocked by pallets, buckets, and a snowblower. In addition, the Outside Consultants subsequently found some eyewash/shower stations that were blocked or missing water.
- (j) *Signage issues:* The Facility lacked a sign or schematic with instructions and steps for shutting down the system in an emergency, and a sign posted in the ammonia machinery room to identify the refrigeration system installer did not include required information about the ammonia charge, the type of oil in the system, and the amount and test pressures applied to the system. In addition, on August 18, 2021, the Outside Consultants subsequently found that the machinery room sign did not have the correct ammonia charge information.
- (k) *Entry doors to the ammonia refrigeration room were not tight-fitting,* which could allow ammonia vapors to escape in an uncontrolled manner during a release. In addition, the Outside Consultants subsequently found that the exit door from that room to the hallway lacked a panic bar.

75. The alleged violations of 40 C.F.R. § 68.65 lasted from at least September 9, 2019 (when ammonia was added to the Refrigeration System) to at least January 11, 2022.

76. Defendant's conduct alleged above in Paragraphs 67 - 75 was a violation of 40 C.F.R. § 68.65.

SECOND CLAIM FOR RELIEF – VIOLATION OF 40 C.F.R. §§ 68.67 & 68.75

Failure to Identify, Evaluate, and Control Hazards Through Process Hazard Analysis and Management of Change Procedures

77. Pursuant to 40 C.F.R. § 68.67, the owner or operator of a Program 3 process must conduct a process hazard analysis (“PHA”). Pursuant to 40 C.F.R. § 68.67(a), the PHA shall be appropriate to the complexity of the process and shall identify, evaluate, and control the hazards involved in the process.

78. Pursuant to 40 C.F.R. § 68.67(c), the PHA shall, among other things, address: the hazards of the process; the engineering and administrative controls applicable to the hazards and their interrelationships; the consequence of failure of administrative and engineering controls; and stationary source siting.

79. Pursuant to 40 C.F.R. § 68.67(e), the owner or operator shall: establish a system to promptly address the PHA team's findings and recommendations; assure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; develop a written schedule of when these actions are to be completed; and communicate the actions to operating, maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations or actions.

80. The RMP Regulations and ammonia refrigeration RAGAGEP contain safeguards to ensure that an owner or operator conducts its PHA and corrects hazards before startup of a covered process. These safeguards include provisions in the pre-startup review regulations of 40 C.F.R. § 68.77 requiring that an owner or operator perform the PHA and address recommendations before starting up new stationary sources; the RMP submittal requirement of

40 C.F.R. § 68.175(e), which requires an owner or operator of a Program 3 process to record in its RMP submittal the date the last PHA was completed, major hazards identified, and the expected date of any changes resulting from the PHA; the requirement in 40 C.F.R. § 68.10(a) to comply with the requirements of Part 68 no later than the date on which a regulated substance is first present above a threshold quantity in a process; and installation pre-startup RAGAGEP cited in Attachment A.

81. Pursuant to 40 C.F.R. § 68.67(f), at least every five years after the completion of the initial process hazard analysis, the process hazard analysis shall be updated to assure that the process hazard analysis is consistent with the current process.

82. Pursuant to 40 C.F.R. § 68.75, between PHA updates, the owner or operator of a Program 3 process must continue to evaluate the hazards associated with changes under its Management of Change program. The owner or operator must establish and implement written procedures to manage changes (except for replacements in kind) to process chemicals, technology, equipment, and procedures, and changes to stationary sources that affect a covered process. In accordance with § 68.75(b), the management of change procedures must assure that, prior to any change, they address, among other things, the impact of the change on safety and health.

Failure to Identify, Evaluate, or Control Hazards in PHA – Evaporator Units (§ 68.67(a) and (c))

83. Defendant began to conduct a process hazard analysis for the Refrigeration System in February of 2019, which it completed on August 6, 2019.

84. Defendant was still in the process of preparing the Facility for use *after* Defendant conducted its process hazard analysis and submitted its RMP. For example, Defendant added

racks to the +45 Fruit Room no earlier than September 8, 2019, more than a month after Defendant had completed its process hazard analysis.

85. Defendant's PHA, dated August 6, 2019, did not adequately identify, evaluate, or control hazards associated with forklifts accidentally hitting evaporator units and associated piping and valves, a known hazard in the industry. This hazard is one of *siting*, which is required to be evaluated pursuant to 68.67(c). Although Defendant's PHA identified forklift impact hazards for some of Defendant's evaporator units, the PHA failed to identify impact hazards for evaporator unit AAU7, which was the unit struck by a forklift on April 2, 2020. In addition, Defendant's PHA failed to identify impact hazards for several other evaporator installations observed during EPA's inspection or depicted in a video taken by the hazardous materials response team on April 2, 2020. Defendant has indicated that the decision to move AAU7 to the +45 Fruit Storage room was made in May 2019. Defendant has also indicated that the storage racks were placed in the +45 Fruit Storage rooms in September 2019, but has not indicated when the location of the storage racks was determined. In any event, Defendant should have updated its PHA immediately prior to startup to ensure that the PHA analysis at least reflected conditions at the Facility immediately prior to startup.

86. Likewise, the PHA failed to *control* hazards associated with some evaporator installations that were identified in its PHA as needing impact protection but for which work was not scheduled in the PHA, or timely completed, as further discussed below. . Accordingly, Defendant violated 40 C.F.R. § 68.67(a) and (c) with regard to these evaporator units.

Failure to Evaluate Other Hazards in PHA (§ 68.67(a) and (c))

87. Also, in violation of 40 C.F.R. § 68.67(a) and (c), Defendant's PHA failed to assess the hazards associated with the following elements of the Process: indoor piping,

ventilation in the machinery room, the construction of the ammonia machinery room, and whether ammonia detectors were set to alarm at the levels that are considered sufficiently protective. Accordingly, Defendant failed to identify hazards associated with the following conditions: detectors set at wrong levels, inadequately labeled piping, and lack of tight-fitting doors in the ammonia machinery room.

Failure to Resolve PHA Recommendations (§ 68.67(e))

88. The PHA prepared by Defendant, dated August 6, 2019, recommended that Taylor Farms implement 20 safety improvements, either within 6 months, or 12-18 months, depending upon the degree of the risk to be assessed by the improvement. Of these 20 improvements, the PHA recommended that eleven, including the protection of seven evaporators, be implemented within six months. Defendant took no steps to implement or even schedule the recommended protections for the seven evaporators prior to the April 2, 2020, incident. As of January 10, 2022, Defendant had installed protection for only three of the seven evaporators. With respect to the ten other recommendations that the PHA advised implementing within six months, Taylor Farms completed only two within the six-month period. Of the remaining eight projects, six were not completed until the period from September to November 2021. In sum, Taylor Farms, for the most part, did not even attempt to implement the improvements recommended by its own PHA in a timely manner. As of the date of the filing of this Complaint, Defendant has indicated that it is in compliance with the regulatory requirements that are alleged to have been violated.

Failure to Follow Management of Change Procedures (§ 68.75)

89. Defendant established written procedures to manage changes in its RMP program.

90. Defendant undertook the following changes to equipment and stationary sources without first considering and documenting the impacts of the change on safety and health in accordance with its written management of change procedures:

- (a) Placing racking near evaporators without protecting them when Defendant installed such racking in September of 2019, including racking placed adjacent to the evaporator struck during the Release (AAU7);
- (b) Moving evaporator #34 on August 16, 2019;
- (c) Operating the refrigeration system without evaporator AAU7 after the Release; and
- (d) Adding oxygen and nitrogen containers to the machinery room after EPA's 2020 inspection.

91. The alleged violations of 40 C.F.R. §§ 68.67 and .75 lasted from at least September 9, 2019 (when ammonia was added to the Refrigeration System) to at least January 10, 2022.

92. Defendant's conduct alleged above in Paragraphs 77 - 91 was a violation of 40 C.F.R. §§ 68.67 and .75.

THIRD CLAIM FOR RELIEF – VIOLATION OF 40 C.F.R. §§ 68.77 & 68.175

Failure to Comply with Pre-Startup Review Requirements

93. Pursuant to 40 C.F.R. § 68.77(a), the owner or operator of a Program 3 process shall perform a pre-startup safety review for new stationary sources and for modified stationary sources when the modification is significant enough to require a change in the process safety information. Under 40 C.F.R. § 68.77(b), the pre-startup safety review shall confirm that (1) construction and equipment is in accordance with design specifications; (2) safety, operating,

maintenance, and emergency procedures are in place and are adequate; (3) for new stationary sources, a process hazard analysis has been performed and recommendations have been resolved or implemented before startup; (4) for modified stationary sources, they meet the requirements contained in management of change, § 68.75; and (5) training of each employee involved in a process has been completed.

94. Pursuant to 40 C.F.R. § 68.175, a facility's RMP must include the date of the most recent pre-startup safety review.

95. Defendant's September 1, 2019 pre-startup safety review verification form failed to attest and confirm that construction and equipment were in accordance with design specifications.

96. Such design specifications include IIAR standards referenced in Attachment A, which require, among other things, that ammonia-containing equipment, such as evaporators, be protected from impacts when it is installed in a location subject to physical damage.

97. In addition, Defendant failed to provide the date of the most recent pre-startup review in its RMP.

98. Defendant's conduct alleged above in Paragraphs 93- 97 was a violation of 40 C.F.R. § 68.77 and .175.

FOURTH CLAIM FOR RELIEF – VIOLATION OF 40 C.F.R. §§ 68.73

Failure to Comply with Mechanical Integrity Procedures

99. Pursuant to 40 C.F.R. § 68.73(b), the owner or operator a Program 3 process shall establish and implement written procedures to maintain the on-going integrity of process equipment. Under § 68.73(a), the mechanical integrity provisions of §§ 68.73(b)-(f) apply to,

among other equipment, piping systems (including piping components, such as valves) and controls (including monitoring devices and sensors, alarms, and interlocks).

100. Pursuant to § 68.73(d)(1)-(3), the owner or operator shall perform inspections and tests on process equipment and follow RAGAGEP. The frequency of inspections and tests of process equipment must be consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experience.

101. Pursuant to § 68.73(d)(4), the owner or operator shall document each inspection and test that has been performed on process equipment.

102. Pursuant to § 68.73(e), the owner or operator shall correct deficiencies in equipment that are outside acceptable limits (defined by the process safety information in §68.65) before further use or in a safe and timely manner when necessary means are taken to assure safe operation.

103. General RAGAGEP for mechanical integrity testing and inspection include ANSI/IIAR 2-2014, *Standard for Safe Design of Closed-Circuit Ammonia Refrigeration Systems*, § 17.3; IIAR Bulletin 110, Appendix B and § 6.6.4 (revoked by IIAR but still in use until operators switch to ANSI/IIAR 6), and ANSI/IIAR 6-2019 *Standard for Testing, Inspection, and Maintenance of Closed-Circuit Ammonia Refrigeration Systems*, Chpt. 12. Such RAGAGEP calls for, among other things, annual testing of detectors, unless the manufacturer recommends testing more frequently. Per the manual for the ammonia detectors at the Facility, calibration of detectors is required every six months. Recommended testing frequency is per manufacturer's instructions and, if not provided by such instructions, at least annually.

104. Defendant's own mechanical integrity program requires detector calibration every six months.

105. Defendant failed to calibrate, or document calibration of, detectors from at least September 2019, when ammonia was added to the Refrigeration System, until at least February or March of 2020. Also, an engine room sensor was not calibrated, or not documented as calibrated, during the September 2020 calibration event.

106. The alleged violations of 40 C.F.R. § 68.73 lasted from at least September 9, 2019, to March 13, 2020 (with a calibration event occurring on March 14, 2020) and from September 18, 2020, to April 6, 2021 (with a calibration event occurring on April 7, 2021).

107. Defendant's conduct alleged above in Paragraphs 99 - 106 violated 40 C.F.R. § 68.73.

FIFTH CLAIM FOR RELIEF – VIOLATION OF 40 C.F.R. §§ 68.195

Failure to Make Required Corrections to the RMP to Update Emergency Contacts and Accident History Information

108. Pursuant to 40 C.F.R. § 68.195(a), the owner or operator of a stationary source for which an RMP was submitted shall update the RMP to include new accident history within six months of the release or by the time the RMP is updated under § 68.190, whichever is earlier. The requirement applies for accidental releases meeting the criteria of § 68.42, which applies to accidental releases from covered processes that resulted in, among other things, deaths, injuries, or significant property damage on site.

109. Pursuant to § 68.195(b), within one month of any change in the emergency contact requirement, the owner or operator shall submit an RMP that is corrected to reflect that change.

110. The Release meets the criteria of § 68.42. Defendant failed to update the RMP for the Facility to include this accident history within six months of the Release (i.e., by October 2020).

111. The emergency contact listed in the RMP on the day of the Release was incorrect.

112. Defendant has failed to update the RMP for the facility with a new emergency contact at least three times since it filed its original RMP. R.E. [initials used instead of names] was listed as the emergency contact in the original RMP submitted on September 3, 2019. As of February 17, 2020, R.E. was no longer the emergency contact. M.R. became the emergency contact as of that date, but Defendant did not update the RMP by March 17, 2020, as required by 40 C.F.R. § 68.195(b). M.R. left the company on February 12, 2021, but Defendant again failed to update the RMP by March 12, 2021. A.D. took over as the emergency contact on March 1, 2021, but Defendant failed for a third time to update the contact information on April 1, 2021.

113. The alleged violations of 40 C.F.R. § 68.195 lasted from at least March 17, 2020, to October 4, 2021.

114. Defendant's conduct alleged above in Paragraphs 108-113 violated 40 C.F.R. § 68.195.

SIXTH CLAIM FOR RELIEF – VIOLATION OF 40 C.F.R. §§ 68.10(a), 68.12(d), 68.90, and 68.93

Failure to Coordinate Response Actions with Local Response Agencies

115. Pursuant to 40 C.F.R. § 68.12(d), the owner or operator of a stationary source with a process subject to Program 3 must, among other things, coordinate response actions with local emergency planning and response agencies as provided in § 68.93. In accordance with § 68.10(a), except as otherwise provided, compliance is due no later than the date on which a

regulated substance is first present above a threshold quantity in a process. Pursuant to § 68.93(b), coordination activities must occur on an annual basis.

116. Pursuant to § 68.93(b), coordination shall include providing to the local emergency planning and response organizations the following information: the stationary source's emergency response plan if one exists; emergency action plan; updated emergency contact information; and other information necessary for developing and implementing the local emergency response plan. Also, the owner or operator shall request an opportunity to meet with the local emergency planning committee (or equivalent) and/or local fire department, as appropriate, to review and discuss those materials.

117. Pursuant to § 68.93(c), the owner and operator shall document the coordination activities.

118. On September 9, 2019, Taylor Farms added ammonia to its Refrigeration System and thus became operational. Per § 68.10(a), compliance with §§ 68.90 and 68.93 was due by this date, at the latest.

119. Taylor Farms failed to timely provide its RMP and emergency action plan (“EAP”) to the local fire department and the local emergency planning agency (“LEPC”). The local fire department obtained the RMP and EAP from the state fire marshal, and the LEPC received the RMP and EAP from the local fire department in November 2019. Additionally, in September 2019, EPA provided a copy of the RMP to the LEPC.

120. On October 11, 2019, the LEPC requested the RMP, EAP, and an EPCRA Tier II form from Defendant, but Defendant did not provide the information until on or about November 15, 2019.

121. The alleged violations of 40 C.F.R. §§ 68.10(a), 68.12(d), 68.90, and 68.93 lasted from September 9, 2019, to November 26, 2019.

122. Defendant's conduct alleged above in Paragraphs 115-121 was a violation of 40 C.F.R. §§ 68.10(a), 68.12(d), 68.90, and 68.93.

**SEVENTH CLAIM FOR RELIEF – VIOLATION OF EPCRA Section 312
and 40 C.F.R. Part 370**

Failure to Timely File EPCRA Chemical Inventory Report

123. EPCRA Section 312, 42 U.S.C. § 11022(a), and 40 C.F.R. Part 370 require owners or operators of facilities that are required by OSHA to prepare or have available a Safety Data Sheet (“SDS”) for hazardous chemicals to submit chemical inventory reports to the SERC, LEPC, and the local fire department with jurisdiction over the facility if the chemicals are present at the Facility in amounts over threshold amounts.

124. Defendant is the operator of a facility required by OSHA to prepare or have available a Safety Data Sheet (“SDS”) for the anhydrous ammonia used in the Refrigeration System, and for sulfuric acid, contained in lead-acid batteries.

125. In accordance with 40 C.F.R. Part 355, App. A and B, both ammonia and sulfuric acid are Extremely Hazardous Substances (“EHSSs”) for which the reporting level under 40 C.F.R. § 370.10(a)(1) would be 500 lbs.

126. The chemicals were present at the Facility in 2019 and 2020 in amounts exceeding 500 lbs.

127. In accordance with 40 C.F.R. § 370.40, Defendant was required to submit a more comprehensive Tier II chemical inventory form, rather than the less specific Tier I form, as

Rhode Island specifies use of the Tier II form. *See*

<https://dem.ri.gov/programs/emergencyresponse/epcaintro.php> (last checked April 13, 2023).

128. Under 40 C.F.R. §§ 370.20, 370.40, 370.44, and 370.45, Respondent was required to prepare and submit a Tier II Form to the SERC, LEPC, and the local fire department with jurisdiction over the Facility for calendar year 2020 by March 1, 2021.

129. Defendant failed to submit a Tier II form for calendar year 2020 by March 1, 2021. This failure occurred after Taylor Farms had failed to timely respond to the LEPC's request for a Tier II form after the Facility opened in 2019.

130. Defendant filed the Tier II for calendar year 2020 with the SERC on March 19, 2021, 18 days late. However, Defendant did not file the 2020 Tier II with the LEPC or fire department until after the LEPC notified Taylor Farms on March 29, 2021, that the Tier II was missing. That day, Defendant submitted its Tier II, but the LEPC rejected it because, among other things, it had the wrong emergency contact number for the company (using 911 instead) and lacked information about the sulfuric acid in batteries. A corrected Tier II was submitted on April 28, 2021.

131. Defendant's failure to timely submit the Tier II Form for anhydrous ammonia and sulfuric acid for calendar year 2020 violated Section 312(a) of EPCRA, 42 U.S.C. § 11022(a), and 40 C.F.R. §§ 370.20, 370.40, 370.44, and 370.45.

132. The alleged EPCRA violation lasted from March 2, 2021, to April 28, 2021.

133. Defendant's conduct alleged above in Paragraphs 123-132 was a violation of 40 C.F.R. §§ 68.10(a), 68.12(d), 68.90, and 68.93.

RELIEF SOUGHT

WHEREFORE, Plaintiff, the United States, respectfully prays that this Court provide the following relief:

1. Order Defendant to pay a civil penalty for violations of (a) Section 112(r)(7) of the CAA in the amount of up to \$117,468 per day for each violation, and (b) Section 312 of EPCRA in the amount of up to \$67,544 for each violation.
2. Order the Defendant to confirm that the Rhode Island Facility has corrected the violations alleged in the Complaint, and to the extent it has not, implement such corrections.
3. Award the United States its costs of this action; and
4. Grant the United States such further relief as this Court may deem just and proper.

Respectfully submitted,

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ATTACHMENT A

Recognized and Generally Accepted Good Engineering Practices

In collaboration with the American National Standards Institute, the International Institute of Ammonia Refrigeration (“IIAR”) has issued and updates, among others, Standard 2: *Standard for Safe Design of Closed-Circuit Ammonia Refrigeration Systems* (“ANSI/IIAR 2”) (e.g., 2014 version, with Addendum A published in July 2019); Standard 4: *Installation of Closed-Circuit Ammonia Mechanical Refrigeration Systems* (“ANSI/IIAR 4”), Standard 5: Start-up and Commissioning of Closed Circuit Ammonia Refrigeration Systems (2013 with subsequent edition published on September 9, 2019) (“ANSI/IIAR 5”); Standard 6: *Standard for Testing, Inspection, and Maintenance of Closed-Circuit Ammonia Refrigeration Systems* (“ANSI/IIAR 6”), and Standard 9: *Standard for Minimum System Safety Requirements for Existing Closed-Circuit Ammonia Refrigeration Systems* (“ANSI/IIAR 9”) *inter alia*, along with other applicable standards and guidance. Bulletins and guidance include, without limitation, IIAR Bulletin No. 109, *Guidelines for IIAR Minimum Safety Criteria for a Safe Ammonia Refrigeration System* (1997, and in effect until 2019 when ANSI/IIAR 6 replaced it) (“IIAR Bull. 109”); IIAR Bulletin No. 110, *Guidelines for Start-Up, Inspection, and Maintenance of Ammonia Mechanical Refrigerating Systems* (1993, most recently updated in 2007, and in effect until 2019 when ANSI/IIAR 6 replaced it) (“IIAR Bull. 110”); IIAR Bulletin No. 114, *Guidelines for Identification of Ammonia Refrigeration Piping and Components* (1991, updated in 2018) (“IIAR Bull. 114”); Also, in collaboration with the American National Standards Institute, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (“ASHRAE”) has issued (and updates) “Standard 15: Safety Standard for Refrigeration Systems.” These standards are consistently relied upon by refrigeration experts and are often incorporated into state building and mechanical codes.

Deficiency	Examples of RAGAGEP
Evaporators in the cold storage warehouse which contain anhydrous ammonia, were not provided with adequate protection from physical damage, particularly in areas where storage rack heights extended above the level of the evaporators. A sight-glass in the ammonia machinery room lacked	Ammonia containing equipment and other equipment must be protected where there is a risk of physical damage occurring. See e.g., ANSI/IIAR 2-2014 and 2-2014 Add. A §§ 5.17.1 (general design requirement specifying that where ammonia-containing equipment is installed in a location subject to physical damage, guarding or barricading shall be provided) and 7.2.4 (requiring refrigeration equipment in areas other than machinery rooms to be protected where a risk of physical damage exists); ANSI/IIAR 2-2008 (Add. B) § 10.2.3 (requiring 1/2 inch and smaller pipe to be adequately supported and/or protected to prevent damage; 12.1.1 (requiring visual liquid level indicators to be protected from physical damage); ANSI/IIAR 4-2015 <i>Installation of Closed-Circuit Ammonia Refrigeration Systems</i> § 5.4.7 (All components and piping shall be installed in such a manner that they

Deficiency	Examples of RAGAGEP
impact protection, and some ammonia piping in that room also was not protected from impacts.	are protected from physical and environmental damage.); ANSI/IIAR 9-2020 §§ 7.2.11.1 and 7.2.12.1 (requiring guarding or barricading to protect ammonia-containing equipment that is installed in an area subject to physical damage, such as an area with heavy vehicle traffic); ANSI/ASHRAE 15-2013 § 11.1 (Means shall be taken to adequately safeguard piping, controls, and other refrigerating equipment to minimize possible accidental damage or rupture by external sources); IIAR Bulletin 109, § 7 Insp. Checklists
The King valve, which is the critical shutoff valve for the high-pressure receiver, was not properly labeled, which could create confusion during an emergency. There were three valves in the vicinity, and the sign for the King valve was on a solenoid valve, not the likely King valve.	Emergency shut down valves must be clearly and uniquely identified by the valve and in the schematics. <i>See, e.g.,</i> ANSI/IIAR 2-2014 § 5.14.3; ANSI/IIAR 2-2014 Add. A § 5.14.4; ANSI/ASHRAE 15-2013 § 11.2.2; IIAR Bulletin No. 109 § 4.10.3; NFPA 1-2012 §§ 53.2.4.2; and ANSI/IIAR 9-2020, Section 7.2.9.3
Some pipe labeling near the evaporator installation that was impacted by a forklift during the Release was not visible, in that the ammonia labels were on the back of the piping facing the wall, where a forklift operator would not have easily seen it, rather than on the front side facing the room and aisle.	Ammonia piping must be labeled with information about the refrigerant, physical state, pressure, and direction of flow. <i>See e.g.,</i> ANSI/IIAR 2-2014, § 5.14.5; ANSI/IIAR 2-2014 Add. A § 5.14.6; ANSI/IIAR 2-2008 Add. B § 10.6; ANSI/ASHRAE 15-2013 § 11.2.2; IIAR Bulletin 109 § 4.7.6; IIAR Bulletin 114 Section 4.1; and IIAR 9-2020 § 7.2.9.4.
The ammonia detector in the area where the Release occurred (the +45 Fruit Room) was set to trigger	ANSI/IIAR 2-2014 and 2-2014 Add. A § 6.13.1.2 – for ammonia machinery rooms (AMRs): (Detection of ammonia concentrations equal to or exceeding 25 ppm shall activate visual indicators and audible alarms...). In locations other than AMRs, Sect. 17.7 provides that the detector shall activate an alarm that reports to a monitored location so that corrective action can be taken at an

Deficiency	Examples of RAGAGEP
an alarm at a set point higher than 25 parts per million (“ppm”).	indicated concentration of 25 ppm or higher. ANSI/IIAR 2-2008 Add. B § 13.2.3 (one of the two detectors must activate an alarm and actuate normal ventilation at a value not greater than the corresponding TLV-TWA).
Facility personnel did not know the purpose of emergency buttons labeled “EPCS,” and another set of other emergency ventilation and shutdown buttons were inadequately labeled in that they did not specify that the buttons were for the ammonia system.	The emergency shut-off switch must have a tamper-resistant cover and be marked by clear signage near the controls regarding its function. <i>See e.g.</i> , ANSI/IIAR 2-2014 and 2-2014 Add. A § 6.12.1 and ASHRAE 15-2013 § 8.12(i); IIAR 9-2020 § 7.3.11.1. Also, facilities must have clearly identified control switch for emergency ventilation with a tamper-resistant cover located outside the machinery room and adjacent to the designated principal machinery room door. <i>See e.g.</i> , ANSI/IIAR 2-2014 and 2-2014 Add. A § 6.12.2; ANSI/IIAR 2-2008 Add. B § 13.3.11.2 (requiring that the function of the emergency Ventilation remote controls shall be clearly marked by signage near the controls); IIAR 9-2020 § 7.3.11.2.
The Outside Consultants found that the blue ammonia light on the outside of the machinery room was missing a sign indicating that there is an ammonia hazard occurring when the blue light is flashing.	ANSI/IIAR 2-2014 and 2-2014 Add. A § 6.13.1 (requiring audible and visual alarms inside and outside machinery room) and § 17.6 (requiring that ammonia alarms shall be identified by adjacent signage). Same requirements in ANSI/IIAR 2-2008 Add. B §§ 13.2.1.2 and 13.2.4.1. and in ANSI/IIAR 9-2020 §§ 7.13.12.1 and 7.13.12.6.
The inspectors observed electrical hazards, which posed a fire risk, in rooms that had ammonia-containing equipment. Specifically, in the cold storage warehouse area, where ammonia-containing evaporators and piping were located, the inspectors observed water pooling next to a temporary forklift battery charging	Electrical equipment and wiring shall be installed in accordance with the Electrical Code. <i>See e.g.</i> , NFPA 70-2011 and 2014 §§ 110.12(B) (re. integrity of electrical equipment and connections) and 400.8 (extension cords not allowed as substitute for fixed wiring or when the cord is subject to physical damage); 29 C.F.R. 1910.334(a)(4) (extension cord requirements); ANSI/IIAR 2-2014 § 6.8.1 and ANSI/IIAR 2-2008 Add. B § 13.1.7.1 (for machinery rooms, requiring electrical equipment and wiring for ammonia refrigeration systems to be installed in accordance with the Electrical Code.); ANSI/IIAR 2-2014 Add. A § 5.17.10 (general ammonia refrigeration system design requirement stating that electrical equipment and wiring shall be installed in accordance with the Electrical Code). IIAR Bulletin 109, General Safety Checklist, item x (covers securely fastened to all electrical panels and junction boxes?)

Deficiency	Examples of RAGAGEP
<p>station. The temporary charging station had extension cords rather than permanent electrical wiring. Also, there were open electrical panels in the ammonia machinery room, creating a fire hazard in a location where compressors, piping, and the receiver were located.</p> <p>The Outside Consultants found an electrical junction box above the exit door in the Fruit Storage Room that was missing a cover, and an extension cord being used as permanent wiring in the ammonia machinery room to power equipment for nitrogen and oxygen tanks.</p>	
<p>The inspectors observed inappropriate storage of some materials, such as maintenance equipment and personal protective equipment, in the ammonia machinery room.</p> <p>The Outside Consultants found oxygen and nitrogen containers in the machinery room, which is a fire hazard.</p>	<p>Refrigeration machinery must be located to allow access for maintenance and allow egress from any part of the machinery room in case of an emergency. <i>See e.g.</i> ANSI/IIAR 2-2014 and 2-2014 Add. A §§ 5.12.1, 6.3.1, 6.3.2, and 6.4; ANSI/IIAR 2-2008 Add. B §13.1.2.2 and 13.1.3.1; ANSI/ASHRAE 15-2013 §§ 8.3, 9.12.1 and 11.6; NFPA 1-2012 §§ 53.3.1.3.1 and 53.3.1.2; and IIAR 9-2020 §§ 7.2.8, 7.2.11.2, 7.3.3.1; IIAR Bulletin 109, General Safety checklist, item w (Ammonia gas masks, air packs and other approved emergency equipment available in conspicuous, easily accessible locations outside machinery rooms?)</p> <p>ANSI/IIAR 2-2014 and 2-2014 Add. A § 6.4 (prohibiting combustible materials to be stored in machinery rooms outside of approved fire-rated storage containers); ANSI/IIAR 2-2008 Add. B §13.1.3; IIAR 9-2020 § 7.3.4</p>

Deficiency	Examples of RAGAGEP
Emergency eyewash/shower stations were blocked by pallets, buckets, and a snowblower. The Outside Consultants subsequently found some eyewash stations that were blocked or missing water.	The machinery room must have at least two eyewash/safety shower units installed, one in the machinery room and one outside. Path of travel to the eyewash/safety shower units cannot be impeded. <i>See e.g., IIAR 9-2020 §§ 7.3.7.1 and 2, and ANSI/IIAR 2-2014 Add. A (2019) § 6.7</i> (requiring each AMR to have a minimum of two eyewash/safety shower units, one located inside the AMR, and one located outside the AMR. The path to the unit outside the AMR may not be obstructed); <i>ANSI/IIAR 2-2008 Add. B (2012) § 13.1.6.1</i> requiring a readily accessible eyewash and body shower external to the machinery room; <i>ANSI/ISEA Z358.1-2014 §§ 4.1, 5.1, 4.5.2, 5.4.2, and B5</i> (eyewashes and shower stations should provide flushing fluid, should be accessible within 10 seconds, and not be obstructed).
<p>The Facility lacked a sign or schematic with instructions and steps for shutting down the system in an emergency. Also, a sign posted in the ammonia machinery room to identify the refrigeration system installer did not include required information about the ammonia charge, the type of oil in the system, and the amount and test pressures applied to the system.</p> <p>Such signage is an integral part of the Process, helping to prevent and/or mitigate releases from the compressors, receiver, and piping by ensuring safe operation and providing ready shutdown instructions.</p>	Emergency shutdown procedures for the refrigeration system should be readily available to staff and emergency responders. <i>See e.g., Sect. 5.15 in ANSI/IIAR 2-2014 and 2-2014 Add. A; ANSI/IIAR 9-2020 §§ 7.2.9 and 7.2.10.5</i> (requiring directions for the emergency shutdown of the refrigeration system to be readily available to staff and emergency responders and enumerating required information, including, among other things, emergency shutoff steps, quantity of ammonia in the system, type and quantity of refrigerant oil, and field test pressures); <i>ANSI/ASHRAE 15-2013 § 11.2.1 and 11.7; ANSI/IIAR 2-2008 Add. B § 13.1.10.4; NFPA 1-2012 § 53.2.4.1.</i>

Deficiency	Examples of RAGAGEP
<p>Entry doors to the ammonia machinery room were not tight-fitting, which could allow ammonia vapors to escape from the ammonia-containing equipment in the room to other parts of the building during a release.</p> <p>The Outside Consultants also observed that a door from the ammonia machinery room lacked panic hardware.</p>	<p>Machinery room doors must be tight fitting and self-closing and have panic hardware. <i>See e.g., ANSI/IIAR 2-2014 and 2-2014 Add. A § 6.10.2; ANSI/IIAR 2-2008 Add. B § 13.1.10 and 13.110.3; and ANSI/IIAR 9-2020 § 7.3.9.2</i></p> <p>An ammonia machinery room should be maintained under negative pressure. <i>See e.g., IIAR 2-2014 Add. A § 6.14.5.1.</i></p>
<p>Failure to comply with <i>installation and pre-startup RAGAGEP</i> to ensure that, among other things, evaporators were protected, detector set points were documented, the PHA was completed, and PHA recommendations were addressed.</p>	<p>IIAR 4-2015 <i>Installation of Closed-Circuit Ammonia Refrigeration Systems</i> § 5.4.7 (All components and piping shall be installed in such a manner that they are protected from physical and environmental damage.)</p> <p>ANSI/IIAR 5-2013 (<i>Start-up and Commissioning of Closed-Circuit Ammonia Refrigeration Systems</i>): <i>For Start-Up of New Installations:</i> § 7.3 Pre-Charging Safety Review: Prior to charging refrigeration grade ammonia into the refrigeration system, the designated trained start-up technician shall confirm that personnel and equipment are ready. An example of a Pre-charging Check List is provided in Appendix D. All Pre-charging Check List items shall be confirmed in accordance with OSHA regulation 29 CFR 1910.119, Process Safety Management of Highly Hazardous Chemicals (ref. 4.1.4.1). <i>For Start-Up of Additions and Modifications to Existing Installations--</i> § 8.4.2 Prior to commencement of start-up, a visual inspection shall include, but not be limited to, all piping, electrical wiring, supports covers, and guards to ensure the system is in proper order. § 5.8.1 The following shall be inspected, verified, tested, proven to function as designed, and put into operation by trained startup personnel prior to charging the system with ammonia refrigerant: 1. Ventilation system - temperature control and emergency; 2. Refrigerant detection and alarms; 3. Emergency</p>

Deficiency	Examples of RAGAGEP
	<p>eyewash and shower stations; 4. Emergency shutdown. § 5.11.4 The Process Hazard Analysis (PHA), Safety and Health Review, and/or Hazard Review, where required, shall be confirmed completed. The confirmation shall verify that all recommendations identified during these reviews have been addressed. § 7.8.2 requires startup documentation including, for example, documentation of setpoints. § 7.8.8 Operational and System Emergency Devices: The following shall be exercised and proven operational before ammonia is introduced to the system: Normal Ventilation, Emergency Ventilation, Emergency Shut-Down Button(s), Any Automatic Emergency Isolation Valve(s), Deluge Shower/Eyewash, Refrigerant Detectors. All shutdown and alarm devices shall be tested for operation and function at the specified setting. Any device out of range or that fails to function properly shall be adjusted, recalibrated, or replaced.</p> <p>From Defendant's pre-startup documents, it appears that the company was using Bulletin 110 <i>Guidelines for Start-up, Inspection and Maintenance of Ammonia Mechanical Refrigerating Systems</i>, but ANSI/IIAR 5 was included on its list of design codes and standards in App. H of its PSM/RMP Program. IIAR Bulletin 110 includes a provision in § 5.2.1 requiring that, before startup, process hazard analysis recommendations be addressed or implemented.</p>